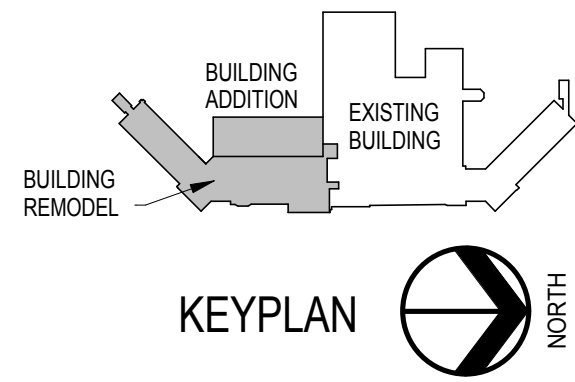


- ### HVAC PLAN GENERAL NOTES
- MATERIALS AND EQUIPMENT SHOWN ON PLANS SHALL BE NEW AND SHALL BE FURNISHED BY THIS CONTRACTOR UNLESS OTHERWISE INDICATED.
  - IN GENERAL, DUCTWORK SHALL BE RUN CONCEALED IN SUSPENDED CEILING SPACES AND IN SHAFTS PROVIDED UNLESS NOTED OR OTHERWISE INDICATED. CERTAIN ROOMS HAVE NO SUSPENDED CEILINGS, AND DUCTWORK IN THESE ROOMS SHALL BE EXPOSED.
  - DUCTWORK IS INTENDED TO BE CONCEALED IN WALLS AND PARTITIONS UNLESS SPECIFICALLY NOTED OTHERWISE. SOME ITEMS MAY APPEAR NOT TO BE CONCEALED DUE TO DIGITAL REGISTRATION AND ALIGNMENT ISSUES ASSOCIATED WITH THE DIGITIZATION PROCESS.
  - COOPERATE WITH THE OTHER TRADES TO AVOID ANY CONFLICTS BETWEEN PIPING, DUCTWORK, ELECTRICAL WORK.
  - DETAILS, SCHEMATICS, DIAGRAMS, DESIGNATE GENERAL ARRANGEMENT ONLY.
  - FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON FLOOR PLANS, REFER TO ELEVATIONS, DETAILS, RISERS AND SCHEDULES.
  - THIS CONTRACTOR IS RESPONSIBLE FOR ALL SLEEVES AND/OR OPENINGS WHERE REQUIRED TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOOR SLABS, WALLS, BRIDGING AND BEAMS EXCEPT WHERE OTHERWISE INDICATED.
  - CONSULT REFLECTED CEILING PLAN FOR EXACT LOCATION OF SPRINKLER HEADS, GRILLES, REGISTERS, AND DIFFUSERS.
  - CEILING ACCESS IS REQUIRED AT ALL REHEAT COILS, VALVES, FIRE DAMPERS, MANUAL AND MOTORIZED DAMPERS LOCATED ABOVE CEILING. CEILING ACCESS PANELS WILL BE PROVIDED UNDER THE GENERAL SECTION OF CONSTRUCTION AND SHALL BE MINIMUM OF 24" X 24" UNLESS OTHERWISE INDICATED. COORDINATE WITH GENERAL CONTRACTOR.
  - THERMOSTATS LOCATED AT OUTSIDE WALLS SHALL BE MOUNTED ON INSULATED BACKING TO MINIMIZE WALL EFFECT.
  - THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
  - WHERE NEW SERVICES ARE SHOWN CONNECTING TO EXISTING, VERIFY EXACT LOCATION AND SIZE OF EXISTING.
  - EXISTING SERVICES SHALL BE MAINTAINED UNLESS OTHERWISE INDICATED.
  - ALL DUCTS WHICH ARE DASHED AND/OR INDICATED BY NOTE ON DEMOLITION PLANS SHALL BE REMOVED.
  - DIFFUSERS IN ROOMS WITHOUT FINISHED CEILINGS SHALL BE INSTALLED WITH THE BOTTOM OF THE DIFFUSER AT 9'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.
  - VERIFY DUCT CONNECTIONS SIZES TO POWER ROOF VENTILATORS.
  - WHERE SHEET METAL HOUSING, PLENUMS AND DUCTWORK ARE FASTENED TO GENERAL CONSTRUCTION, TAKE SPECIAL CARE TO MAKE AN AIRTIGHT SEAL AT THIS POINT.
  - DUCTWORK AND CONNECTIONS BETWEEN THE 4-INCH PRESSURE DUCTWORK AND THE VAV BOXES SHALL BE THE SIZE OF THE BOX INLET. DO NOT USE FLEXIBLE DUCTWORK.
  - FLEXIBLE DUCTWORK AND CONNECTIONS BETWEEN THE LOW PRESSURE DUCTWORK AND THE DIFFUSERS SHALL BE THE SIZE OF THE DIFFUSER INLET. CONNECTION TO THE 2-INCH DUCT SHALL BE MADE THROUGH A CONNECTOR DAMPER ASSEMBLY.
  - FOR FLEXIBLE DUCTWORK CONNECTIONS, NYLON DUCT STRAPS SHALL BE USED. USE A DUCT STRAP ON INNER DUCT AND ON OUTER INSULATION COVERING.
  - BUTTER AND SEAL ALL SHEET METAL DUCTWORK JOINTS.
  - WHERE MATERIAL IS INDICATED TO BE REMOVED, IT SHALL REMAIN THE PROPERTY OF THE OWNER. THIS CONTRACTOR SHALL DISPOSE OF MATERIAL AS DIRECTED BY THE OWNER.
  - BALANCING OF AIR AND HYDRONIC SYSTEMS SHALL BE PERFORMED BY AN NEBB OR AHC CERTIFIED TEST AND BALANCE AGENCY.
  - DUCT PENETRATIONS OF SMOKE PARTITION WALLS SHALL BE PROPERLY SEALED TO RESIST THE PASSAGE OF SMOKE AS REQUIRED BY THE LOCAL AUTHORITY.
  - MECHANICAL CONTRACTOR SHALL PROVIDE BALANCING DAMPERS WHERE INDICATED. IN ADDITION CONTRACTOR SHALL PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFFS TO DIFFUSERS, GRILLES, AND REGISTERS, REGARDLESS OF WHETHER DAMPERS ARE SPECIFIED AS PART OF THE DIFFUSER, GRILLE, OR REGISTER ASSEMBLY. THE BALANCING DAMPER SHALL BE LOCATED IN THE DUCT IMMEDIATELY AFTER THE DUCT TAKE-OFF AT THE MAIN DUCT CONNECTION.
  - SEE SPECIFICATIONS FOR DUCT INSULATION AND DUCT LINER REQUIREMENTS.
  - SEE SHEET 5-MH101 ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN FOR ADDITIONAL INFORMATION.
  - PROVIDE TURNING VANES FOR ALL MITERED ELBOWS.

- ### HVAC PLAN KEYNOTES
- COMBINATION FIRE/SMOKE DAMPER
  - PROVIDE VOLUME DAMPER IN VERTICAL DROP TO GRILLE OR DIFFUSER
  - MOUNT SIDEWALL EXHAUST GRILLE TYPE 'RS' LOW ON WALL. SEE ARCHITECTURAL PLANS FOR DETAILS
  - PROVIDE NEW 18x16 EXHAUST AIR LOUVER
  - PROVIDE NEW RELIEF AIR DUCT AS SHOWN. CONNECT TO EXISTING RELIEF DUCTWORK AND TO NEW RELIEF LOUVER. VERIFY DUCT CONNECTIONS TO EXISTING AHU.
  - PROVIDE NEW OUTSIDE AIR DUCTWORK AS SHOWN AND CONNECT TO EXISTING OUTSIDE AIR DUCTWORK AND TO NEW OUTSIDE AIR PLENUM. VERIFY DUCT CONNECTIONS TO EXISTING AHU.
  - PROVIDE NEW 36x24 RELIEF AIR LOUVER
  - REMOVE 46x18 SA & RA UP TO FLOOR LEVEL ON 4TH FLOOR. CAP AND SEAL AIR TIGHT.
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- NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN



**1F 4TH FLOOR HVAC PLAN**  
1/8" = 1'-0"

**FULLY SPRINKLERED  
100% CONSTRUCTION DOCUMENTS**

<b>CONSULTANTS:</b>			<b>ARCHITECTS/ ENGINEERS:</b>  TSP, Inc. 1112 N. West Ave. Sioux Falls, SD 57104 phone: (605) 336-1160 fax: (605) 336-7926 www.teamtsp.com 		<b>Drawing Title</b> <b>4TH FLOOR HVAC PLAN</b>		<b>Project Title</b> <b>Sioux Falls VA Health Care System Acute Inpatient Medical Unit Addition and Renovation</b>		<b>Project Number</b> 04100857		<b>Office of Construction and Facilities Management</b> 	
					<b>Approved: Project Director</b>		<b>Location</b> VA Medical Center 2801 W. 22nd Street, PO Box 5046 Sioux Falls, SD 57117-5046		<b>Building Number</b> <b>5</b>			
<b>MARK</b>		<b>REVISION DESCRIPTION</b>		<b>DATE</b>		<b>Date</b> 08/06/2012		<b>Checked</b> BSW		<b>Drawn</b> BSW		<b>Drawing Number</b> <b>5-MH104</b> Dwg. 91 of 123